

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) An intervertebral implant (1), ~~specifically an artificial intervertebral disk~~, comprising a central axis (2), an upper section (10), suitable for laying onto the base plate of a vertebral body lying above, and a lower section (20) suitable for laying onto the cover plate of a vertebral body lying below, wherein:

~~A) the upper section (10) is provided with~~ has a ventral side area (11), a dorsal side area (12), two lateral side areas (13,14), a top apposition surface (15), and a bottom surface (16);

~~B) the lower section (20) is provided with~~ has a ventral side area (21), a dorsal side area (22), two lateral side areas (23,24), a bottom apposition surface (25), and a top surface (26); wherein and

~~C) the two sections (10,20) are moveable in relation to each other by means of via~~ two joints (38;39) arranged between the two sections (10;20), wherein:

~~D) each of the joints (38;39) is provided with~~ has a swivel axle (3;4) and the two swivel axles (3;4) are arranged transversely or perpendicular to each other;

~~E) the two joints (38;39) are realised by means of~~ comprise an upper joint element (31) connected with the upper section (10), a central joint element (32), and a lower joint element (33) connected with the lower section (20);

~~F) one of the external upper and lower joint sections (31;33) comprises~~ at least one concave sliding surface (58) rotation-symmetrical with regard to a one of the swivel axle (3;4); and

~~G) the central joint section (32) comprises~~ at least one convex sliding surface (57) complementary to this concave sliding surface (58), wherein

~~H)~~ the other of the ~~external~~ upper and lower joint sections (~~31;33~~) comprises at least one convex sliding surface (~~55~~) rotation-symmetrical with regard to the other swivel axle (~~3;4~~); and

~~I)~~ the central joint section (~~32~~) comprises at least one concave sliding surface (~~56~~) complementary to this convex sliding surface (~~55~~);

~~K)~~ the sliding surfaces (~~55;56;57;58~~) are configured as partial surface areas of circular cylindrical or circular conical surface areas; and

~~L)~~ the swivel ~~axes~~ axles (~~3;4~~) are arranged skewed to each other.

2. (currently amended) The intervertebral implant (~~1~~) according to ~~Claim~~ claim 1, wherein the lower joint element (~~33~~) comprises at least one lower concave sliding surface (~~58~~) rotation-symmetrical with regard to the first swivel axle (~~3~~) and the central joint section (~~32~~) comprises at least one lower convex sliding surface (~~57~~) complementary to the lower concave sliding surface (~~58~~).

3. (currently amended) The intervertebral implant (~~1~~) according to ~~Claim~~ claim 1, wherein the upper joint element (~~31~~) comprises at least one upper convex sliding surface (~~55~~) rotation-symmetrical with regard to the second swivel axle (~~4~~) and the central joint section (~~32~~) comprises at least one upper concave sliding surface (~~56~~) complementary to the upper convex sliding surface (~~55~~).

4. – 6. (canceled)

7. (currently amended) The intervertebral implant (~~1~~) according to claim 1, ~~wherein further comprising a means (40) is provided that keeps for keeping~~ the two sections (~~10;20~~), measured at their ventral side areas (~~11;21~~), at a fixed distance from each other.

8. (currently amended) The intervertebral implant (1) according to claim 1, ~~wherein further comprising~~ a means (40) ~~is provided that is suitable~~ for causing temporary blocking of the mobility of the two sections (10;20) around the joints (38;39).

9. (currently amended) The intervertebral implant (1) according to ~~Claim~~ claim 7, wherein the means (40) can be attached to the two ventral side areas (11;21) of the two sections (10;20).

10. (currently amended) The intervertebral implant (1) according to ~~Claim~~ claim 8, wherein the means (40) include an insert (41) with a lower end (45) and an upper end (46) and a depression (42;43) in the surfaces (16;26) at each of the two sections (10;20), which are open on the ventral side areas (11;21), and that the insert (41) with its ends (45;46) can be inserted into each of the depressions (42;43).

11. (currently amended) The intervertebral implant (1) according to ~~Claim~~ claim 10, wherein the depressions (42;43) are dovetail guides and the ends (45;46) on the insert (41) are arranged complementary to these dovetail guides.

12. (currently amended) The intervertebral implant (1) according to ~~Claim~~ claim 11, wherein the dovetail guides are tapered from the ventral side areas (11;21) towards the dorsal side areas (12;22).

13. (currently amended) The intervertebral implant (1) according to claim 1, wherein the upper and the lower ~~section~~ sections (10;20) each comprise at least two drill holes (80) running through from the ventral side areas (11;21) to the apposition surfaces (15;25) with longitudinal axes (83) for receiving bone fixation devices (81).

14. (currently amended) The intervertebral implant (1) according to ~~Claim~~ claim 13, wherein the longitudinal axes ~~(83)~~ of the drill holes ~~(80)~~ make an angle γ with the central axis ~~(2)~~.

15. (currently amended) The intervertebral implant (1) according to ~~Claim~~ claim 14, wherein the angle γ lies in a range of between 20° and 65°.

16. (currently amended) The intervertebral implant (1) according to claim 13, wherein the longitudinal axes ~~(83)~~ of the drill holes ~~(80)~~ as seen from the ventral side areas ~~(11;21)~~ diverge from the inner surfaces ~~(16;26)~~ against the apposition surfaces ~~(15;25)~~.

17. (currently amended) The intervertebral implant (1) according to claim 13, wherein the drill holes ~~(80)~~ are conically tapered towards the apposition surfaces ~~(15;25)~~.

18. (currently amended) The intervertebral implant (1) according to claim 13, wherein the drill holes ~~(80)~~ ~~are provided with~~ have an internal thread ~~(82)~~.

19. (currently amended) A process for the replacement of a ~~defect defective~~, natural intervertebral disk ~~characterized~~ by an intervertebral implant, comprising ~~the steps~~:

A) ~~blocking of the one or more joint(s) (38;39) of an intervertebral implant (1) through the special~~ with blocking means (40) inserted in a certain position of the joint(s) ~~(38;39)~~;

B) ~~insertion of~~ inserting the intervertebral implant (1) into the an intervertebral space to be treated; and

C) ~~release~~ releasing and ~~removal of removing the device (40) blocking~~ means inserted into the intervertebral implant (1) for blocking the joint(s) ~~(38;39)~~.

20. (currently amended) The process according to ~~Claim~~ claim 19, additionally comprising ~~the step of the~~ subsequent blocking of the joint(s) ~~(38;39)~~ on the implanted intervertebral implant ~~(1) through~~ with the blocking means ~~(40)~~.